

WHAT IS CLAIMED IS:

1. A material comprising:  
opposed flexible layers;  
a seam connecting a portion of the opposed  
5 flexible layers to form an interspatial  
pocket between the opposed flexible layers;  
and  
a resistant infrastructure having a higher  
penetration resistance than the opposed  
10 flexible layers disposed in the interspatial  
pocket between the opposed flexible layers.
2. The material of claim 1 wherein the resistant  
infrastructure includes a plurality of spaced  
15 relatively rigid guard plates.
3. The material of claim 1 wherein the opposed  
flexible layers are formed of an elastomeric material.
- 20 4. The material of claim 1 wherein the opposed  
flexible layers are formed of a polyurethane material.
5. The material of claim 2 wherein the guard plates  
are formed of a curable resin or epoxy.  
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6. The material of claim 2 wherein the guard plates  
include a layer of glass beads or particles.

7. The material of claim 2 wherein the plurality of spaced guard plates are separated by void space between adjacent guard plates.

5 8. The material of claim 2 wherein the plurality of spaced guard plates are formed on a substrate.

10 9. The material of claim 8 wherein the substrate is a substrate layer interposed in the interspatial pocket between the opposed flexible layers.

15 10. The material of claim 8 wherein the substrate is one of the opposed flexible layers having the guard plates formed thereon.

20 11. The material of claim 1 including a plurality of penetration resistant infrastructures interposed in the interspatial pocket between the opposed flexible layers.

25 12. The material of claim 11 wherein the plurality of penetration resistant infrastructures include multiple guard plate arrays formed on a substrate.

30 13. The material of claim 1 wherein the resistant infrastructure includes a flexible penetration resistant fabric.

14. The material of claim 13 wherein the flexible penetration resistant fabric is one of a kevlar or spectra material.

5 15. A glove comprising:

10 a polymer glove body including a reinforced body portion including opposed polymer layers bounded by a seam to form an interspatial pocket therebetween and including a resistant infrastructure interposed in the interspatial pocket between the opposed polymer layers.

15 16. The glove of claim 15 wherein the resistant infrastructure includes a plurality of spaced rigid guard plates interposed in the interspatial pocket between the opposed polymer layers.

20 17. The glove of claim 16 wherein the rigid guard plates are formed of a curable resin or epoxy.

18. The glove of claim 15 wherein the opposed polymer layers are formed of polyurethane material.

25 19. The glove of claim 15 wherein the polymer glove body includes a non-reinforced portion and the non-reinforced portion includes laminated polymer layers

20. The glove of claim 16 wherein the plurality of rigid guard plates are formed on a substrate.

21. The glove of claim 20 wherein the substrate is one  
5 of the opposed polymer layers.

22. The glove of claim 20 wherein the substrate is a substrate layer interposed in the interspatial pocket between the opposed polymer layers.

10 23. The glove of claim 15 including a plurality of penetration resistant infrastructures in the interspatial pocket between the opposed polymer layers having a higher penetration resistance than the opposed  
15 polymer layers.

24. A material comprising:  
a plurality of spaced guard plates formed on a substrate having a void space between  
20 adjacent guard plates and the plurality of spaced guard plates formed of a hard curable material; and  
a glass particle layer formed on the hard curable material.

25 25. A method of fabricating a material comprising steps of:  
depositing a curable hard layer on a substrate;

coating a first surface of the curable hard layer  
with glass particles or beads; and  
directing a radiation source at a second surface  
of the curable hard layer to cure the  
5 curable hard layer having the glass  
particles or beads thereon.

26. A method of fabricating a glove comprising steps  
of:  
10 fabricating a flexible penetration resistant  
infrastructure;  
interposing the penetration resistant  
infrastructure between opposed polymer  
layers; and  
15 forming a glove body including an interspatial  
pocket between the opposed polymer layers  
having the penetration resistant  
infrastructure disposed therein.

20 27. The method of claim 26 wherein the step of forming  
the glove body includes the step of:  
cutting the polymer layers of glove body and heat  
sealing an edge portion of the polymer  
layers to form the glove body having a body  
25 cavity.

28. The method of claim 27 wherein the step of forming  
the glove body includes the step;

laminating portions of the opposed polymer layers  
to form the interspatial pocket  
therebetween.

5 29. The method of claim 26 wherein the penetration  
resistant infrastructure includes a guard plate array  
and further comprising the steps of:

printing an array of curable guard plates on a  
substrate; and

10 curing the printed array of guard plates.